



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------|------------------|
| 09/911,228 | 07/23/2001 | Gary A. Kasper | 71189-1337 | 4771 |
| 20915 | 7590 | 09/24/2004 | EXAMINER TILL, TERRENCE R | |
| MCGARRY BAIR PC 171 MONROE AVENUE, N.W. SUITE 600 GRAND RAPIDS, MI 49503 | | | ART UNIT 1744 | PAPER NUMBER |

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------|---------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/911,228 | KASPER ET AL. |
| | Examiner | Art Unit |
| | Terrence R. Till | 1744 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1,4-8, 16-22 and 24-26 is/are rejected.
- 7) Claim(s) 2,3,9-15 and 23 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/23/01, 1/25/02
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: ____.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 24 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. In claim 24, "the cleaning module" lacks antecedent basis. It is not known to what preceding claimed element is being referred.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 1744

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 4-8 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trautloff et al. (cited in IDS) in view of Gurstein et al. (cited in IDS).

9. The patent to Trautloff et al. discloses a portable surface cleaning apparatus, comprising: a fluid dispensing system including at least one fluid supply tank 79, a dispensing nozzle (part of head 21) connected to the fluid supply tank through a fluid supply conduit 29 and a pump 83 for applying a cleaning fluid to a surface to be cleaned at a predetermined rate; a fluid recovery tank 13 for holding recovered fluid; a suction nozzle (part of head 21); a working air conduit 31 extending between the recovery tank and the suction nozzle; and a vacuum source 73, 77 in fluid communication with the recovery tank for generating a flow of working air from the suction nozzle through the working air conduit and to the recovery tank to thereby recover fluid from the surface to be cleaned through the suction nozzle and working air conduit and into the recovery tank; a heater exchanger 85, including a heater element, associated with the fluid supply conduit

for heating the cleaning fluid in the fluid supply conduit to be applied to the surface to be cleaned. Trautloff et al. does not disclose the heat exchanger including a heat storage body. The patent to Gurstein et al. discloses a heat exchanger 10 for upholstery and carpet cleaning equipment that includes a heat storage body 11 (aluminum casting; see column 2, lines 55-65) for storing heat energy from the heater element. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the heater element of Trautloff et al. with the heat exchanger element of Gurstein et al. since both heater elements were known at the time of the invention for their use in the carpet cleaning art and the selection of any of these known equivalents to heat the water/cleaning solution would be within the level of ordinary skill in the art. With respect to the limitations of the cleaning fluid flows intermittently through the fluid supply conduit but not to the extent that the cleaning fluid flows continuously through the fluid supply conduit at the predetermined rate; whereby the heater exchanger is designed to store heat energy during dry cycles so that there is sufficient heat energy to heat the cleaning fluid to a predetermined temperature range during a wet cycle when the cleaning fluid is flowing at the predetermined rate, the device of Trautloff et al., as modified by Gurstein et al., would inherently function in the manner claimed as all structural limitations of the claim have been met. With respect to claims 4 and 5, since Gurstein et al. can heat water in two minutes to 200°F or more, it is considered capable of elevating the temperature of the cleaning fluid approximately 16 degrees Fahrenheit at a rate of approximately 850 milliliters per minute. Also, both Trautloff et al. and Gurstein et al. utilize conventional wall outlets to supply electrical power.

With respect to claims 17 and 20, Trautloff et al., as modified by Gurstein et al., is considered to continuously supply at least about 500 watts of power from an ordinary 120 volt line and up to 10,000 Joules in about 20 seconds (essentially 500 watts a second), since, as stated above Trautloff et al. and Gurstein et al. utilize conventional wall outlets and heat the water to 200°F or more. This leads the examiner to believe that over 500 watts of power, per second, are being used continuously.

10. Claims 22, 24, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nauta in view of Gurstein et al. (cited in IDS).

The patent to Nauta discloses a portable surface cleaning apparatus, comprising: a fluid dispensing system including at least one fluid supply tank 14, a dispensing nozzle 28 connected to the fluid supply tank through a fluid supply conduit 24 and a pump 22 for applying a cleaning fluid to a surface to be cleaned at a predetermined rate; a fluid recovery tank 16 for holding recovered fluid; a suction nozzle 72; a working air conduit 70,74,76 extending between the recovery tank and the suction nozzle; and a vacuum source 32,38, in fluid communication with the recovery tank for generating a flow of working air from the suction nozzle through the working air conduit and to the recovery tank to thereby recover fluid from the surface to be cleaned through the suction nozzle and working air conduit and into the recovery tank; a heater (see column 5, line 55 through column 6, line 9), including a heater element, associated with the fluid supply conduit for heating the cleaning fluid in the fluid supply conduit to be applied to the surface to be cleaned. Also, Nauta is considered to disclose a cleaning module (vacuum recovery tank- see figure 4) that is a canister. Nauta does not disclose the heat exchanger including a heat storage body. The patent to Gurstein et al. discloses a heat exchanger 10 for upholstery and

carpet cleaning equipment that includes a heat storage body 11 (aluminum casting; see column 2, lines 55-65) for storing heat energy from the heater element. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the heater element of Nauta with the heat exchanger element of Gurstein et al. since both heater elements were known at the time of the invention for their use in the carpet cleaning art and the selection of any of these known equivalents to heat the water/cleaning solution would be within the level of ordinary skill in the art. With respect to the limitations of the cleaning fluid flows intermittently through the fluid supply conduit but not to the extent that the cleaning fluid flows continuously through the fluid supply conduit at the predetermined rate; whereby the heater exchanger is designed to store heat energy during dry cycles so that there is sufficient heat energy to heat the cleaning fluid to a predetermined temperature range during a wet cycle when the cleaning fluid is flowing at the predetermined rate, the device of Trautloff et al., as modified by Gurstein et al., would inherently function in the manner claimed as all structural limitations of the claim have been met. With respect to the limitation of the electrical heating element and the size of the heat storage body are selected to elevate the cleaning fluid within the fluid supply conduit at least 30 degrees within 30 seconds or less, the electrical heating element and the vacuum source are connected to a common electrical input and are adapted to be powered by a common power source common 120 volt power source, Nauta, as modified by Gurstein et al., is considered to elevate the cleaning fluid within the fluid supply conduit at least 30 degrees within 30 seconds or less since Nauta and Gurstein et al. utilize conventional wall outlets and Gurstein et al. heats the water to 200°F or more.

Allowable Subject Matter

11. Claims 2, 3, 9-15 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

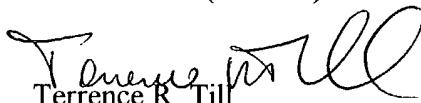
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Mansur shows a floor washing device with electrical heater elements. The patents to Kasper, Miner, Kasper et al., Miner et al. and Huffman all show the same disclosed device claiming one or more different features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

- Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Terrence R. Till

Application/Control Number: 09/911,228
Art Unit: 1744

Page 8

Primary Examiner
Art Unit 1744

trt